

# Twenty-first Century Strategies for Protected Areas in East Asia

## Introduction

**T**he dawn of the new millennium provides an excellent opportunity to assess the future of conservation in the 21st century. The Fontainebleau Symposium, held in France in November 1998 to mark the 50th anniversary of IUCN-The World Conservation Union, reviewed conservation achievements over the previous half-century and assessed future challenges. The symposium noted a dichotomy. On the one hand, awareness of conservation issues has never been higher. Concepts such as biodiversity conservation and sustainable development are increasingly being mainstreamed into key sectors of the economy. The recent proliferation of international environmental conventions also reflects growing awareness of the significance of the environment for life on earth. However, on the other hand, many key environmental indicators give rise to major concerns. The rate at which humans are altering their environment, and the impact of this on biodiversity, is accelerating and likely to increase by an order of magnitude over the next century or so. This dichotomy shows a clear need for the establishment and implementation of clearer and more effective conservation priorities.

These messages are particularly relevant in East Asia, where high populations and rapid economic development are placing pressure on remaining natural resources. The scale of the problem is underlined by the fact that Asia accounts for less than 15% of the world's land but is the home of 50% of the world's population. The need for effective conservation of natural resources is increasingly apparent, and most countries in the region are responding. Protected areas are playing an increasingly important role

in addressing the challenges of biodiversity conservation and sustainable development in East Asia. Protected areas have been established throughout the region and these areas represent a vital investment by East Asian countries to ensure a healthy environment in the 21st century. However, the full potential of this investment will not be realized unless dynamic and forward-looking strategies are developed and implemented in the region. This paper provides background on protected areas within East Asia and suggests some strategies

## Protected Areas in East Asia

to ensure that their potential is reached.

### Protected Area

#### Status in East Asia

The East Asian Region, as defined by IUCN's World Commission on Protected Areas (WCPA), covers the Democratic People's Republic of Korea (North Korea), Republic of Korea (South Korea), Japan, Mongolia, People's Republic of China (including Hong Kong), Macau, and Taiwan. This is an area of almost 12 million sq km and encompasses a diverse range of biogeographical and cultural features. As one of the world's most populous regions, the interface between nature and humans is often blurred. As Mishra (1994) notes: "The line where nature ends and human influence begins is indistinct and only an artifact of our limited perception of time."

Conservation of important natural resources has a long history in Asia. McNeely and Wachtel (1991) record the long history of traditional conservation systems and note practices such as hunting rituals which allowed people to live in balance with available resources. People in East Asia have always had a strong awareness of nature and the need for its preservation. Often this was based on aesthetic values of a particular site rather than a conscious awareness of the need for conservation (McNeely et. al. 1994). Ancient thinking on conservation and on protecting important natural

resources was also embodied in the work of scholars such as Confucius. Such thinking is reflected in China, for example, where the values of forests have been recorded for at least 2,500 years, leading to the establishment of temple gardens, restricted hunting areas, and landscape forests. This long history of nature conservation is shared by the other countries of the region, such as North and South Korea, where conservation efforts date back to King Chinsi (540-576 AD) of the Sinra Dynasty, who stressed the importance of scenic areas. In Japan, some of the first references to wildlife conservation date from the 7th century AD when the Japanese Emperor organized a "bird hunting and preservation section" in the Imperial Government. Mongolia has its own tradition for protecting nature that goes back to the 13th century, when many forested hills were protected as holy areas; in the late 1700s the first reserve, Boghd Khan Mountain Strictly Protected Area, was established.

Protected areas have been established in almost all countries in the region. Table 1 shows the current extent of protected areas in the region according to IUCN management category. The coverage of protected areas in East Asia is variable between countries and between ecosystems. There is also considerable variation in the effectiveness of management of these protected areas. Nevertheless, in the East Asia region there has been a

### Protected Areas in East Asia

major expansion in the number of protected areas over the last 30 years, going from far fewer than 100 to nearly 900. Some countries, such as Japan, have had well-established systems of national parks and other protected areas for many years. Others, such as Mongolia, have recently witnessed a large expansion of the protected area estate (Chimed-Ochir

1996). The expansion of protected areas in the region has often led to conflicts over the use of natural resources. In many East Asian countries it is clear that conservation efforts must consider and be linked with the needs of local communities. In Asia, rural people are part of nature and have always seen themselves as such (McNeely and Wachtel 1991).

Table 1. Total number and area of protected areas in East Asia by IUCN management category.

<b>IUCN Category</b>	<b>Number (% of Total)</b>	<b>Area, sq km (% of Total)</b>
Ia — Strict Nature Reserve	35 (4.57%)	90,681 (10.27%)
Ib — Wilderness Area	24 (3.13%)	498,673 (56.48%)
II — National Park	56 (7.31%)	74,437 (8.43%)
III — Natural Monument	30 (3.92%)	11,281 (1.28%)
IV — Habitat / Species Management Area	195 (25.46%)	63,449 (7.19%)
V — Protected Landscape / Seascape	96 (12.53%)	60,601 (6.86%)
VI — Managed Resource Protected Area	330 (43.08%)	83,725 (9.48%)
<b>Total</b>	<b>766 (100%)</b>	<b>882,847 (100%)</b>

## Protected Areas in East Asia

There is no question that East Asia has made progress in the establishment of protected areas. However, there are still significant challenges:

- Key habitats, particularly marine ecosystems, are under-represented. In East Asia, marine and coastal ecosystems are particularly vulnerable to the environmental impacts of development activities. East Asia is characterized by very high human populations along the coasts, which contribute to considerable pressures on marine biodiversity. A number of marine protected areas (MPAs) have been established in East Asia, but still more are required (Kelleher et. al. 1995). It is critical that decisions regarding the establishment of protected areas, both on land and at sea, are based on a rational assessment system and clear priorities. They also need to link with the sustainable development aspirations of local communities, particularly in relation to the role of MPAs in sustaining fish stocks.
- The majority of area under protection falls within the IUCN protected area categories I and II, thus suggesting a need for a broader focus.
- The globally recognized imperative of linking conservation and development is particularly pertinent in East Asia, where population pressures and the requirement for economic development can and does

conflict with conservation and protected area programs. Economic factors have a major influence within the region. The early 1990s witnessed the economic growth of the “Asian Tigers,” with East Asian countries and territories having an unparalleled period of economic growth and development. This was followed by the economic downturn in 1998, leading to significant cuts in the budgets of conservation agencies. This factor underlines the need for accurate valuation of the services provided by protected areas and the need for this information to be clearly communicated to key decision-makers.

### 21st Century Strategies

**Establish more protected areas and make more use of the range of IUCN management categories.** As noted above, there are gaps, at the global and East Asian level, in terms of protected area coverage. A comparison of areal coverage by IUCN management category (Table 2) shows that almost 9% of the world’s surface is under protected status, while only 7.5% of the East Asian region is. Furthermore, the majority of this area is in IUCN categories I and II. IUCN suggests, through its “Guidelines for National Systems Planning,” that any national protected area system plan should include the full range of protected area categories, covering all terrestrial and marine ecosystem type. In East Asia,

## Protected Areas in East Asia

Table 2. Proportion of land area coverage by IUCN management categories: Global vs. East Asia.

IUCN Category	Global	East Asia
I – Strict Nature Reserve / Wilderness Area	1.28%	5.00%
II – National Park	2.67%	0.63%
III – Natural Monument	0.13%	0.10%
IV – Habitat / Species Management Area	1.64%	0.54%
V – Protected Landscape / Seascape	0.71%	0.51%
VI – Managed Resource Protected Area	2.40%	0.71%
<i>Total</i>	<i>8.83%</i>	<i>7.49%</i>

gaps still exist for grasslands and lake systems as well as in coverage of the marine environment. In many East Asian countries the traditional emphasis has been to extend the number of protected areas in Categories I to IV. However, a major change of emphasis, and perception, is required to bring more category V areas into protected area networks, and additional, larger category VI areas. There are several reasons to give more attention to these multi-use protected area categories in East Asia:

- Future opportunities to create new category I-IV areas in East Asia are limited;
- Category V and VI areas are potentially important as buffer and corridor areas to more strictly protected areas;
- The biodiversity and other values to be found in such areas are often significant;

- Such areas offer good opportunities to build new partnerships with stakeholders, particularly local communities; and
- Such areas can provide models for the sustainable management of rural land generally (after Phillips 1998).

Although few Category V areas have been designated in East Asia, they are very common in other regions, such as Europe. A typical example are the national parks of England and Wales, which are mainly upland areas where traditional farming practices and a relatively harsh climate means that much of the country is left open for low-intensity grazing, and is thus also suitable for recreation and access. Category VI expands the protected areas concept to link conservation with sustainable development and also covers those relatively natural areas in which local

## Protected Areas in East Asia

communities have traditional rights to access to natural resources for their sustainable use.

- The message for East Asian countries is the importance of ensuring that full use is made of the range of protected areas. Also, those biomes which are currently under-represented should be given more attention.

### **Plan systematically to place protected areas in a broader context.**

The central message from IUCN's 1997 Albany symposium [a "mid-term review" of progress since the 1992 World Parks Congress; the symposium was held in Albany, Western Australia — ed.] was to move planning away from individual "islands" of protection towards networks of protected areas that link with each other and with surrounding land-uses. The consequence of *not* planning in this way is that existing protected areas will continue to become more and more fragmented and increasingly vulnerable to external threats such as climate change. WCPA is thus encouraging new approaches that link protected areas with the management of entire watersheds and marine ecosystems and also that link protected area "islands" with corridors of wildlands. These initiatives recognize that management of protected areas cannot be separated from what happens on surrounding lands—as is clearly shown for the marine environment, where 50% of all pollutants in the sea come

from the land. The common elements of these approaches are: strictly protected core areas, surrounded by buffer or support zones, and linked by corridors of "ecologically friendly" land management. This approach is showing that protected areas can be integrated into broader regional land-use planning if there is the political will, local support, and the necessary administrative and legal framework to make it happen.

The opportunities for such approaches should be assessed in East Asia. Models, such as the biosphere reserve, are well-established in the region and provide an excellent framework for broader bioregional planning. The biosphere reserve approach has more than 20 years of practical application and the concept is particularly valid in East Asia, where conservation efforts must be considered in the context of national and regional development imperatives. A number of countries in the region, such as China, have developed networks of biosphere reserves, under the direction of effective National MAB (Man and the Biosphere) committees. In China, more than 60 nature reserves constitute the China Biosphere Reserve Network. This network fulfils a valuable role in facilitating exchange and information, both within China and between China and other countries.

Protected area planning should also be linked with other planning frameworks, such as National Biodi-

## Protected Areas in East Asia

iversity Strategies, which call on all contracting parties to the Convention on Biological Diversity to develop (under Article 8) systems of protected areas, thus providing a useful framework for integrating concepts such as bioregional planning and corridors.

- The key strategy for East Asian countries should be to widen traditional approaches to protected areas, so that they are seen as core conservation areas within wider land-use planning. Specifically, protected areas in East Asia should: (1) form an integrated aspect of regional planning; (2) be concerned with an interlinked network, rather than a series of individual sites; and (3) encourage managers to give even higher priority to outreach and communication with local communities and other land users.

**Increased support, at all levels, for protected areas** is essential if they are to have a viable future. In many parts of the world, protected areas are seen as marginal to other areas of policy, such as economic development and agriculture. If protected areas are to have a strong and viable future, this situation must change. Protected areas need to be accepted as credible sectors in their own right and mainstreamed along with other policy areas. A key issue is to appropriately identify and communicate the many values and benefits that protected areas offer society.

Often such values are neither identified nor articulated in government policy forums, even though they can be significant. Clearer articulation of the benefits of protected areas can show how they relate to different sectors of government policy. Table 3 gives examples.

Protected area values need to be clearly articulated and communicated. Recent work by IUCN on the economic values of protected areas (IUCN 1998) reveals that they are often significant revenue-earning entities and can make an important contribution to local economies. For instance, recent studies indicate that Canada is expected to create CDN\$6.5 billion dollars in annual Gross Domestic Product from the expenditure of participants in wildlife-related activities, which sustain 159,000 jobs and creates CDN\$2.5 billion in tax revenue each year. Australia receives over AUS\$2 billion in expenditure from eight national parks—at a direct cost to governments of only some AUS\$60 million. In Costa Rica, about US\$12 million is spent annually to maintain the national parks, but foreign exchange associated with the parks was more than US\$330 million in 1991, with 500,000 overseas visitors; park-generated tourism is the second largest industry in the country.

There is a clear message here: investment in protected areas can provide significant benefits to national and local economies. Far from being

### Protected Areas in East Asia

Table 3. Values of protected areas and principal sectoral policy implications.

Biodiversity conservation	<ul style="list-style-type: none"> <li>• nature conservation</li> <li>• health</li> <li>• agriculture</li> <li>• industry</li> <li>• foreign affairs</li> </ul>
Watershed protection	<ul style="list-style-type: none"> <li>• natural resources management</li> <li>• water supply</li> </ul>
Storm protection	<ul style="list-style-type: none"> <li>• disaster prevention</li> </ul>
Tourism	<ul style="list-style-type: none"> <li>• economic development</li> <li>• transport</li> </ul>
Local amenity	<ul style="list-style-type: none"> <li>• local government</li> <li>• recreation</li> <li>• public health</li> </ul>
Forest products	<ul style="list-style-type: none"> <li>• forestry</li> <li>• economic development</li> <li>• community affairs</li> </ul>
Soil conservation	<ul style="list-style-type: none"> <li>• agriculture</li> <li>• natural resources management</li> </ul>
Carbon sequestration	<ul style="list-style-type: none"> <li>• energy policy</li> <li>• foreign affairs</li> </ul>
Research and education	<ul style="list-style-type: none"> <li>• research</li> <li>• science</li> <li>• education (all levels)</li> </ul>
Cultural values	<ul style="list-style-type: none"> <li>• community affairs</li> <li>• local government</li> </ul>
Source: Phillips 1998	

locked up and lost to local users, these areas represent an opportunity for sustainable industries and for the generation of financial returns.

It is assumed that similar figures exist in East Asian countries, particularly in the context of the tourism industry. To date, there has been little



### Protected Areas in East Asia

assessment of the economic contribution of protected areas in East Asia. However, those studies which have been undertaken indicate that the contribution is significant. Yoshida (1996) notes that, since 1992, there have been many efforts to increase awareness of the importance of protected areas for tourism in the region. Although tourism benefits associated can be significant, it is important that tourism be carefully planned so it does not destroy the natural resource on which it is based in the first place. There are many examples around the world of high tourist use of protected areas, coupled with poor planning, which have caused significant adverse environmental impacts. The high populations in East Asian and increasing leisure time contribute to increasing tourism impacts on protected areas in the region. Strategies to address high visitor use are suggested by Jim (1996), in relation to country parks in Hong Kong, and may have application elsewhere in the region.

Tourism is rapidly growing in many countries in the region. For example, in China the tourism sector is one of the most thriving industries in the country. Data from the World Tourism Organization indicates that in 1993 China ranked fifteenth in tourist arrivals and had the highest annual growth rate, 16.5%. The nature-based tourism sector is increasing rapidly within the region, with particular focus on internationally

designated areas, such as World Heritage sites.

Protected areas thus provide major benefits through nature-based tourism; however, the benefits from ecosystem services are much higher. For example, protected areas can play a major role in minimizing the impacts of catastrophic storm events, such as those in China in 1998. Protection of upper catchment areas provide watershed protection to lowland river valleys, preventing soil erosion and reducing the severity of flood and drought. In China, for example, it has been found that the annual added value of water and soil conservation, air purification, acid rain buffering, and other functions in three forested areas was between two and ten times the gross output value of timber, wood processing, and orchard production. At the national level, it has been estimated that the economic value of the water storage function of China's forests is three times the actual value of the wood in those forests. The clearer identification of benefits from protected areas, and the use of such information to support protected areas in various economic and political forums, is essential. Xue and Tisdell (1999) quantify the many values of ecosystem services associated with the Changbaishan Mountain Biosphere Reserve in northeast China. Their research focuses on a monetary valuation of ecosystem services using the methods of market pricing, shadow engineering, op-

## Protected Areas in East Asia

portunity cost, and alternative expense. Using these approaches, they note that the value of the reserve for ecosystem services is 16 times higher than the opportunity cost for regular timber production.

Similarly, protected areas must broaden the base of support at the local community level. Global and East Asian experience shows that only planning which fully involves all relevant actors is likely to be successful in the long term, though it may often be more expensive and complex initially. The more effective involvement of local communities is one of the major challenges facing protected areas in East Asia, and the key issue is how this can be done most effectively. In many cases, the answer will require an attitude shift on the part of those responsible for protected areas, such that involving local communities is seen as an integral part of good management. Protected area professionals in many parts of East Asia need to expand support for protected areas. This should include developing structures to allow more effective local input, such as through locally based management structures which are designed to give key local decision makers a "voice" in protected area decision-making [see Senga article on the Philippines, this issue — ed.]. Various co-management structures for protected areas are increasingly being applied in many parts of the world, and their relevance in East Asia should be ex-

amined.

There have been many recent initiatives to more effectively involve local communities in East Asia, such as through some of the Integrated Conservation and Development Programs underway in China. Increasing population pressures, both in and adjoining protected areas, have meant that local people must be involved in decisions regarding the establishment and management of protected areas. All countries in the region either have, or are planning to initiate, community involvement programs in their protected areas. There are already a number of innovative examples of community involvement in East Asia. Wong (1996) outlines the wide range of formal (e.g., statutory) and informal (e.g., volunteer) mechanisms used for involving local communities in protected area management in Hong Kong. In Japan, the "Shiretoko 100m<sup>2</sup> Movement" has engaged local people and organizations in an innovative campaign to purchase land for addition to the Shiretoko National Park and to prevent it being developed for industrial purposes. Such examples may provide a good basis for application elsewhere in the region and should be communicated.

- The key message for East Asian countries is to ensure that the full range of benefits from protected areas are identified and appropriately factored into government decision-making. Also, local communities

## Protected Areas in East Asia

must be more closely and effectively involved in the establishment and management of protected areas.

**Make use of the full range of models for establishing and managing protected areas.** Around the world, protected areas have traditionally been managed by government agencies. Institutional arrangements vary, but in many cases protected areas are managed by small and under-resourced departments. In East Asia, protected areas are generally managed by different government agencies in ministries or departments of environment or forestry, although other agencies are increasingly becoming involved. In addition, academic institutions often play an important role in nature conservation efforts. For example, in China the Chinese Academy of Sciences, and its specialized institutes, play an important role in aspects such as natural resource monitoring in protected areas. An important issue in East Asia is the need to improve coordination between different agencies which are involved in protected area and natural resource management.

In many parts of the world the private sector is becoming increasingly involved in protected areas. There are few successful examples to date of private sector management of protected areas, but this appears to be an area with potential in East Asia, although not without its pitfalls. Potential

advantages of private sector involvement in protected areas are the high level of motivation, relative efficiencies in management, and economies of scale available to large companies. On the other side of the coin is the need for *care*, to ensure that conservation objectives are not subsumed by the profit motive. Furthermore, very few private companies currently have the expertise necessary for effective conservation management. There are several examples of private sector involvement in nature conservation in East Asia. For example, Amway Japan Limited (AJL) established the Amway Nature Centre, which has assisted in a wide range of nature conservation projects in Japan. The Keidanren Nature Conservation Fund, also based in Japan, has made a considerable contribution to nature conservation, with many programs focused on protected areas, both in the region and internationally (Matsukawa 1996). Another example is found in the public-service corporation established in support of the Nikko National Park in Japan. The initiative results from a partnership between prefectures, cities and neighboring towns, and an electric company and other related business enterprises. The corporation is aimed at cleaning park sites, providing visitor guidance and supervision, repair and maintenance of facilities, and research; experience to date is positive.

## Protected Areas in East Asia

Nongovernmental organizations (NGOs) are also becoming increasingly active in conservation throughout the world. They often have particular strengths in working with and through local communities. In East Asia, it is clear that NGOs have major potential in the future establishment and management of protected areas. Such involvement ranges from international NGOs such as WWF, the World Wide Fund for Nature, which is particularly active in China and Mongolia, to small NGOs involved in the establishment and management of specific protected areas within countries in the region. Examples of NGO involvement in East Asia include the Wild Bird Society of Japan, which owns a number of bird sanctuaries, and the National Parks Association of Korea, which has been active since 1971 in encouraging the establishment of protected areas in South Korea. The work of the Wildlife Conservation Society's field division in China has made important contributions to protected areas designed to conserve the giant panda and associated flora and fauna. Its wildlife surveys in Tibet (Xizang) and Xinijang led directly to the identification of protected areas, including the 4.5-million-ha Arjin Mountains Nature Reserve and the 33-million-ha Chang Tang Nature Reserve, the world's second-largest protected area. It is anticipated that the role of NGOs in protected areas in East Asia will increase. A critical

aspect in relation to NGOs is the need to build more effective and long-term partnerships with government agencies involved in protected areas. In many parts of the world the relationship between government and NGOs is marked by suspicion. This needs to be replaced by an attitude of co-operation, partnership and mutual benefit.

As well as examining alternatives to supplement government management of protected areas, there is a need to improve existing government structures and procedures in relation to protected areas. Options such as amalgamation of conservation-oriented departments with similar objectives and the development of mechanisms for improving inter-agency coordination are being examined in many countries, such as Australia and Africa. One interesting trend in many countries, particularly in Africa, is the establishment of *parastatal* bodies with responsibility for protected area management. Such agencies, which have been established in countries such as Kenya, Tanzania and Uganda, have a greater level of independence and autonomy than traditional government agencies, particularly in relation to the ability to generate and retain revenue. This latter point is an important consideration for revenue generation programs for protected areas in East Asia.

There is no right answer to the question "What is the ideal

## Protected Areas in East Asia

institutional structure for protected areas in East Asia?” The right approach will depend on the unique circumstances of each country; in most cases it will involve a mix of the above options. In reviewing protected area trends in the 1990s, it is clear that the involvement of the private sector and NGOs in protected area management has been significant. It may be assumed that this trend will accelerate in the 21st century. While this appears positive, it is important to be clear on the respective roles of these sectors in relation to government. It is critical that there be clearly defined management objectives for each country’s protected area system as a whole, and that they provide the framework for the clarification of roles of different actors.

- The key message for East Asian countries is that the number of approaches to managing protected areas will increase and that it is important to ensure that a range of approaches are used, tailored to the needs and circumstances in each country.

**Improve management capacity for protected areas.** Protected areas management is evolving rapidly. Traditionally, the protected area manager is an expert in the natural sciences, and management is seen as an exercise involving the application of expertise to natural systems. However, the challenges facing the

protected area manager in the 21st century are increasing in scale and complexity. The range of skills thus needs to be broadened to include, for example:

- *Management skills*, such as in strategic planning and financial management;
- *Cultural and social expertise*, relating, for example, to partnership and stewardship skills, dispute resolution, and networking with a complex array of stakeholders;
- *Technical skills* in project design, report writing, and information technology; and
- *Policy expertise*, such as understanding the broader legal framework and the other sectoral policies within which protected area activities need to be implemented.

This will require a change on the part of protected area agencies, both in terms of recruitment strategies and in training and career development. The need for training protected area managers in East Asia has never been higher and it is critical that it be broader than the traditional focus on natural resources. Relevant training centres should be developed and, where they already exist, strengthened, to increase management capacity. Existing training efforts, such as those implemented through the Japan Environment Agency, should be strengthened and expanded. Training is essential, but it must focus on the types of skills, as outlined

## Protected Areas in East Asia

above, that will be necessary if protected area managers are able to face the challenges of the next century in East Asia.

Another key element of capacity is the need to improve regional and international cooperation on protected areas. Benefits from this include a broader exposure to issues as well as the potential to develop cooperative approaches to common protected area problems. The benefits of such regional approaches can be clearly seen in a number of parts of the world. For example, the South Pacific Regional Environment Programme has developed into a very effective regional environmental body in the Pacific and has strong support from governments of the region. In Africa, SADC, the South African Development Community, has made a significant impact in increasing the levels of support for wildlife and environmental conservation, as well as promoting technical exchanges between countries.

Such regional networks should be encouraged in East Asia. A number of organizations have been active since the 1960s in assisting countries in the region to plan and develop their protected area networks. Bodies such as UNESCO, WWF, and IUCN have all been involved, in partnership with relevant national agencies. Ishwaran (1996) notes the increasing activities of networks in East Asia implemented under UNESCO as World Heritage sites and biosphere reserves. For

example, there is currently a proposal to establish an Asian Regional Network for the management of World Heritage sites, which would provide a forum for the exchange of information and experience on World Heritage matters. UNESCO also foresees the development of Asian networks on biosphere reserves to complement networks developed at the national level, such as in China. In fact, China, North Korea, South Korea, Japan, and Mongolia have been cooperating since 1993 to establish an East Asian Biosphere Reserves Network (Aruga 1996). During the last decade many countries in the region have also acceded to various international conventions and programs associated with protected areas, such as the Convention on Biodiversity, and these provide useful opportunities for cooperation between the countries and territories in East Asia. There are also important opportunities for cooperation between specific countries in the region, through the establishment and management of transboundary protected areas—contiguous protected areas between two or more countries.

WCPA plays a small but growing role in strengthening networks in the East Asia region; there is considerable scope for broadening this role. Since the first regional meeting of WCPA in East Asia (in Beijing, 1993), and the second (in Kushiro, Japan, 1996), there has been steady but significant

## Protected Areas in East Asia

progress. Activities have included the development of a regional action plan for protected areas; implementation of seminars on topical protected area issues, such as tourism; and the fostering of communication and exchange of experience between protected area managers in the region. The implementation of four projects identified in the regional action plan for protected areas is also contributing to strengthening protected area capacity in the region. One of these projects deals specifically with options for developing an exchange program in the region. Networks such as WCPA can play a potentially valuable role and should be a critical component of

approaches to improve protected area management in the region. To work effectively, these networks must have a clear focus and be adequately funded and staffed. The strengthening and harnessing of such networks is a very important challenge for building capacity for protected areas in the East Asian region in the next century.

- The key message for East Asian countries is the need to build protected area capacity at all levels, with particular emphasis on ensuring managers are equipped with the skills needed for the 21st century, as well as expanding and strengthening protected area networks in the region.

*(Ed. note: This article is an abridged version of a paper delivered at the Third Conference on the Protected Areas of East Asia: Community Involvement in and Around the Protected Areas in East Asia, September 1999.)*

## References

- Aruga, Y. 1996. Networking of biosphere reserves in the East Asian region. Paper presented at the CNPPA East Asia meeting, Kushiro, Japan, July. [CNPPA was the former name of the WCPA.]
- Chimed-Ochir, B. 1996. Protected areas of Mongolia—Past, present, and future. Paper presented at the CNPPA East Asia meeting, Kushiro, Japan, July.
- China Man and the Biosphere Programme. 1996. *China's Biosphere Reserves*. n.p.: Chinese National Committee for MAB.
- Kelleher, G., C. Bleakley, and S. Wells (eds.). 1995. *A Global Representative System of Marine Protected Areas—Volume III: Central Indian Ocean, Arabian Seas, East Africa, and East Asian Seas*. Produced by the Great Barrier Reef Marine Park Authority, The World Bank, and IUCN. Washington, D.C.: The World Bank.
- Green, M.J.B., and J. Paine. 1997. State of the world's protected areas at the end of the twentieth century. Paper presented at the WCPA Symposium, Albany, Western Australia, November.
- Ishwaran, I. 1996. Sub-regional networking for global strategies and conventions. Paper presented to CNPPA working session, Indonesia, May.
- IUCN and World Conservation Monitoring Centre. 1994. *Guidelines for Protected Area Management Categories*. Gland, Switzerland, and Cambridge, U.K.: IUCN.

### Protected Areas in East Asia

- IUCN. 1993. *Parks for Life: Report of the IVth World Congress on National Parks and Protected Areas*. Gland, Switzerland, and Cambridge, U.K.: IUCN.
- . 1996. *A Regional Action Plan for Protected Areas in East Asia*. N.p.: IUCN/WCPA East Asia.
- . 1998. *Economic Values of Protected Areas: Guidelines for Protected Area Managers*. Gland, Switzerland, and Cambridge, U.K.: IUCN.
- Jim, C.Y. 1996. Recreational trampling in Hong Kong's Country Parks: Experimental study and management implications. Paper presented at the CNPPA East Asia meeting, Kushiro, Japan, July.
- Matsukura, H. 1996. Keidanren Nature Conservation Fund, Japan. Paper presented at the CNPPA East Asia meeting, Kushiro, Japan, July.
- McNeely, J.A. 1997. *Conservation and the Future: Trends and Options Towards the Year 2025*. Gland, Switzerland, and Cambridge, U.K.: IUCN.
- McNeely, J.A., J. Harrison, and P. Dingwall (eds.). 1994. *Protecting Nature: Regional Reviews of Protected Areas*. Gland, Switzerland, and Cambridge, U.K.: IUCN.
- McNeely, J.A., and P.S. Wachtel. 1991. *Soul of the Tiger*. New York: Doubleday.
- Munasinghe, M., and J. McNeely (eds.). 1994. *Protected Area Economics and Policy: Linking Conservation and Sustainable Development*. Washington, D.C.: The World Bank and IUCN.
- Phillips, A. 1998. Taking stock at the end of the century. Paper presented to the New South Wales (Australia) New Millennium Review.
- Sheppard, D.A. 1996. Protected areas in East Asia in the 21st century: Key challenges. Paper presented at the CNPPA East Asia meeting, Kushiro, Japan, July.
- Wong, F.Y. 1996. Community involvement in the Country Parks programme in Hong Kong. Paper presented at the CNPPA East Asia meeting, Kushiro, Japan, July.
- Xue, D., and C. Tisdell. 1999. Valuing ecological functions of biodiversity in Changbaishan Mountain Biosphere Reserve in northeast China. In *Proceedings of IUCN/WCPA - EA - 3 Seoul Conference*. N.p.: WCPA East Asia.
- Yoshida, M. 1996. Perspective of ecotourism in Japan and East Asia. Paper presented at the CNPPA East Asia meeting, Kushiro, Japan, July.

**David Sheppard**, Protected Area Program, IUCN—The World Conservation Union, Rue Mauverney 28, CH-1196 Gland, Switzerland; [das@hq.iucn.org](mailto:das@hq.iucn.org)

